

**Amendments to the Claims:**

Claims 1 – 53 (Cancelled)

Claim 54. (Previously Presented)

A method for converting an input color being in a RGB color space to an output  
5 color being in RGB color space, the method comprising:

looking up a first color element of the input color in a first lookup table to generate  
a first converted color element; wherein the first color element and the first  
converted color element belong to the same color component;

looking up a second color element of the input color in a second lookup table to  
10 generate a second converted color element; wherein the second color element and  
the second converted color element belong to the same color component;

converting a third color element to generate a third converted color element by  
gamma correction circuit; wherein the third color element and the third converted  
color element belong to the same color component;

15 wherein one of the color elements of output color is dependent to the first, second  
and third converted color elements;

the first, second and third converted color elements respectively belong to  
different color components;

the color component is one component of RGB; and

20 RGB including R,G, and B components respectively representing red, green, and  
blue colors.

Claim 55. (Previously Presented) The method of claim 54, wherein further comprising  
summing the first, the second and the third converted color elements;

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Claim 56. (Previously Presented) The method of claim 54, wherein further comprising  
summing the first converted color element, the second converted color element and  
one of the color elements of input color; wherein the first converted color element,

the second converted color element and one of the color elements of input color respectively belong to different color components.

Claim 57. (Previously Presented) The method of claim 54, wherein one bit from the value  
5 of the first converted color element is corresponding to serial eight values of the first color element; and one bit from the value of the second converted color element is corresponding to serial eight values of the second color element.

Claim 58. (Previously Presented) The method of claim 54, wherein the first lookup table  
10 is indexed by using a number of bits from values of the first color element; and the second lookup table is indexed by using the number of bits from values of the second color element.

Claim 59. (Previously Presented) The method of claim 58, wherein the number of bits  
15 comprise a number of most significant bits.

Claim 60. (Previously Presented) The method of claim 59, wherein remaining least significant bits of the first and second color elements are not utilized in generating the first and second converted color elements.

20 Claim 61. (New) The method of claim 54, wherein the first and the second color element are five bits data; and the first and the second converted color element are eight bits data.

25 Claim 62. (New) The method of claim 54, wherein the first, the second and the third color elements respectively belong to red, green and blue color components.

Claim 63. (New) The method of claim 54, wherein the first, the second and the third color

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elements respectively belong to green, blue and red color components.

Claim 64. (New) The method of claim 54, wherein the first, the second and the third color elements respectively belong to blue, red and green color components.

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Claim 65. (New) The method of claim 54, wherein the method is applied in a liquid crystal display (LCD) controller.